

of the Tasmanian Field Naturalists Club Inc.

April 1995

Number 278

The Tasmanian Field Naturalists Club encourages the study of natural history and supports conservation. We issue our journal, the *Tasmanian Naturalist*, annually in October. People with a range of backgrounds and knowledge are welcome as members.

Contact Don Hird (344 293) for more information, or write to GPO Box 68A Hobart, 7001.

Program

General meetings start at 7.45pm on the first Thursday of the month in the Life Science Building at the University of Tasmania. Outings are usually held the following Saturday, meeting at 10am outside the main entrance to the Museum in MacQuarie Street.

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| 4 May | Dick Martin, Executive Officer from CSIRO Centre for Research on Introduced Marine Pests, will speak on this current topic. |
| 6 May | <u>9 a.m.</u> : A Marion Bay beach walk will follow the marine theme of the talk. We will be looking for beachwashed items of interest as well as regular denizens of Marion Bay. |
| 1 June | Dave Watts, well-known local wildlife photographer, will not only illustrate his craft but talk about expert tips and techniques which he clearly possesses. |
| 3 June | <u>9 a.m.</u> : Don Hird will lead a walk to a feature known as Gumtop east of Lachlan in the Derwent Valley at the western end of the Wellington Range. Habitats include some similar to those on the more familiar "Hobart" face of Mt. Wellington, but in a more intact state. The area has recently yielded interesting mammal survey results and any further findings can be used to advocate a higher reserve status for the whole Wellington Range. Please Note -; the walking involved is not very far but is quite steep in places. |
| 6 July | Roger Buttermore, assistant curator of invertebrates at the museum, will speak about our recent but not entirely welcome colonists, Bumblebees. |
| 8 July | <u>10 a.m.</u> : Bumblebees being in hibernation, we will use at our usual meeting place (Life Science Building at the University of Tasmania) together with sophisticated video equipment to view significant but small specimens of Kevin Bonham's landsnails. If you have other small specimens bring them along. |
| 3 August | Jill Hickey, Hobart City Council's Bushland Manager, will speak on local areas of interest and their conservation significance and management. |
| 5 August | <u>10 a.m.</u> : Hobart boasts quite a range of natural and semi-natural bushland features such as The Domain, Knocklofty, Lambert / Skyline Park and on to (at present) Mt. Wellington itself. We will visit a range of these. |

New Members A special welcome to Pam Coogan.

General News

New President and Committee changes. Congratulations to Patti Virtue, well known to active members, who is our new President. Sue Collier has returned to the committee as Vice-President. Jim Paterson has joined as a general committee member, while Phil Collier has taken leave of the committee for a year or so.

Survey Group Report

Mammal survey has recommenced with worthwhile results. A bulletin or two back, I wrote about an area at the western end of the Wellington range which looked interesting in terms of mammal signs, for being a habitat type perhaps poorly reserved, and for its aesthetic value. The local Parks ranger kindly allowed access through the locked gate which enabled us to deploy survey traps without carrying heavy gear too far.

A keen environmental studies student assisted with the field work and early results indicate a previously unreported habitat type for the vulnerable Eastern Barred Bandicoot. This animal, together with an abundance of eastern quolls and a potoroo, was caught in *Eucalyptus johnstonii* woodland with a shrubby understorey on poorly drained sandstone soils. Books will tell you that known habitat for the eastern Barred Bandicoot is "grassy areas usually associated with pasture and agricultural areas" or similar. This is the most pristine recorded habitat that I know of for the species; its last relic population on mainland Australia is near Hamilton in western Victoria where it lives in a rubbish tip and the habitat has been described as "abandoned car bodies"! Last year we also found them in another natural habitat, admittedly nearer disturbed areas, at Lambert Gully, Mt Nelson. The species is also poorly represented in reserves.

An interesting but less positive result was the absence of small (rat and mouse sized) mammals early in the survey program. Yet another type of result was apparent smokestains on a sandstone escarpment, possibly an indication of aboriginal occupation of an area that would have overlooked and enabled access to rich lowland foraging areas in the Lachlan and Derwent valleys. The results of all of these findings will appear in more detail later in the Naturalist.

The results will also enable us to advance the cause of upgrading the status of the Mt Wellington range from its current patchwork quilt of Council, Water Board and Lands administration to something more like (or actually) National Park. Previous reviews of the conservation and heritage values of the area have concentrated on published reports relating to the easily accessible and better known areas of our mountain, usually those close to the Mountain Road. Some of these have not been revised in over a century. These findings seem symptomatic of some of our poorly known habitats which haven't been systematically surveyed. They also represent a base on which further work can be undertaken.

Results such as this indicate the lead role we can play in adding to the detailed knowledge of our natural heritage. Results are not always as significant as these, and the field work can be time-consuming, but the overall result seems thoroughly worthwhile.

The Survey Group is active intermittently at the moment. We welcome visitors and new surveyors and observations (in writing please).

Don Hird, Survey Group Convener.

From the Younger Members

I THINK I HAVE
DISCOVERED
A NEW PLANT...

HEY! THAT'S MY TAIL!

BY JOSEPH J.
COLLINS

NATURALIST

ANIMALS IN DANGER

TREES AND SHRUBS

UNDERSTAND THE BUSH

RARE ANIMALS

ALL ABOUT THE ECO SYSTEM

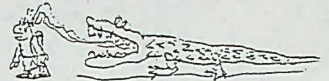
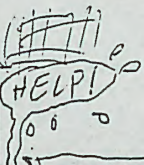
I'LL JUST SIT DOWN HERE....

LOTS OF FUN

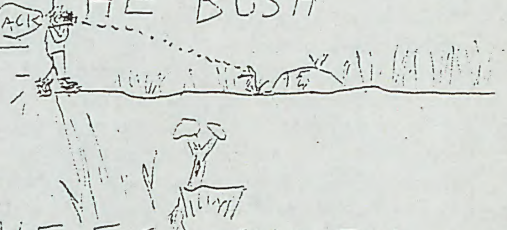
INTERESTING

SAVE ENDANGERED SPECIES

TREE-MENDOUS



I'LL JUST STEP BACK
A BIT....



Conservation Lobbying Activities

Lake Pedder lives (if not breathes) after two decades. Our submission emphasised the irrecoverable loss of original biodiversity (scarcely mentioned elsewhere), and doubted the current priority of the drainage proposal. We also suggested that a fracas of the type for which Tasmania has become renowned would probably ensue. This latter suggestion at least seems utterly vindicated, with the public debate largely focussing on whether or not to beatify the platypus ! While platypus populations would almost certainly have been healthier in the mosaic of stream habitats in the original landscape, the issue shouldn't focus on one cute but abundant species. The core aim of modern conservation aims to keep representative samples of natural features, a concept the protagonists in this debate seem to have missed. The media are also apparently slow learners in this respect. Some of the cost estimates of the draining proposal remind one of the outrageous power demand projections used to "justify" the original and subsequent developments, although costs would undoubtedly be significant. Please ask if you would like to see our submission.

Another summer of ritual conflict over woodchip license issues was another issue in which we were less involved but nonetheless concerned. The credibility of most parties seemed to suffer yet again. Our view is essentially that some independent arbitration (eg federally mediated) is needed, partly because Australia as a whole seems to apply a higher environmental standard of care than Tasmania usually does and because the the exponents of natural resource exploitation shouldn't also be conservators of our natural heritage. The haste of the decision process and the representativeness and performance of the conservation advocates left much to be desired. Our view of representation has been that diversity amongst conservation groups is necessary, but that we would want to be recognised as an independent body. Strident groups have appointed themselves "the conservation movement" without consultation or agreement. Amongst their claims with which we have substantial disagreement is that conservation priorities are not an issue and that definitions (such as that of old growth forest) can be varied at will. Industry claims that Tasmania is well served for nature conservation are equally vapid. Meaningful dialogue would seem difficult in these circumstances. An aspect of the woodchip debate that seems underrated is that of end-use consumption. Newsprint is the main such product and its rampant and usually fleeting consumption indicates that the industry and consumers could bear more of the conservation cost of forest exploitation.

The "Road to Nowhere" seems little more than an act of spite and parochialism, if only in terms of road maintenance priority.

Ramsar Convention in Brisbane in March 1996.

Birdwatchers will know Ramsar as an important international convention involving agreements to protect wetland habitats. This sixth convention has been cited as "the most significant international environment conference ever to be held in Australia" (Senator the Hon. John Faulkner). Perhaps this will be an opportunity to promote the extensive wetland lagoon complex on the east coast of Flinders Island (in its entirety) as worthy of Ramsar status.

1995 April #278

Tasmanian Field Naturalists' Club Inc (established 1904)

WILDLIFE SURVEY GROUP

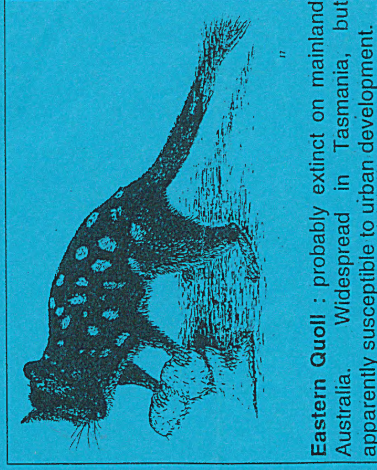
Wildlife Survey primarily aims to study distributions of fauna and flora. This applies on both a broad geographical scale and between detailed habitat types. Many Australian biotas are poorly known and new information is much needed and often not difficult to find. Tas FieldNats Wildlife Survey Group is based around Mammal and Field Survey Groups which have proved valuable interstate. Mammals are a focus group but animals and plants are often encountered which either interact with mammals or are of interest in their own right.

In addition to the intrinsic interest of natural populations, the conservation of our natural heritage is a compelling reason for further study. With the notable exception of the thylacine Tasmania's mammal species have held up remarkably well when compared to the extinction rates and reduction in ranges of their mainland Australian counterparts since European settlement. Despite this, there is no room for complacency as the rate of habitat change is probably at an historical high point and several species now extinct elsewhere have inadequate areas of reserved habitat, for example the bettong.

Although many naturalists prefer to specialise in a particular group of animals or plants, most find that other groups are worthy of attention and can't be ignored. On a practical level, our activities focussed around overnight studies of a primarily nocturnal mammal fauna usually allow time to follow up field studies in the local habitat more generally.

A better knowledge of faunas is important not only on a scientific level but also as a useful adjunct to conservation measures. Perhaps this knowledge

would be most directly useful in determining the range of habitats occupied by various species and thus needing representative reservation. Other benefits include factors such as reproductive rate and timing which might in turn determine the ability of populations to recover from bushfires, for example. It follows from the conservation emphasis of natural history generally that techniques used should not harm animals, and should minimise any discomfort imposed. Handling of fauna is restricted to experienced persons holding appropriate permits.



Eastern Quoll : probably extinct on mainland Australia. Widespread in Tasmania, but apparently susceptible to urban development.

A range of ancillary information is collected in the survey process, for example habitat details, or by supplementing direct survey techniques. Careful and sustained observation may reveal hitherto unknown behavioral repertoires. Additional information on populations may be revealed by repeated surveys within an area; for example some indication of relative abundance may be obtained, as may evidence of seasonal activity patterns.

Capture/release Survey Techniques

This usually involves trapping animals in cages for a minimal period before examination and release. Live-traps are available in sizes for animals ranging from mice to large possums. These are suitably baited, peanut butter concoctions work well with most small animals while meat or fish attracts medium-sized carnivores. Pitfall traps are also used, often in conjunction with a temporary fence to guide animals to the pit. While they need to be carefully designed, they can be useful, in suitable conditions, for species which don't readily enter cages. "Hair Tubes" capture a few hairs rather than the whole the animal; most mammals can be identified on microscopic characters of such a sample. Provision of nest or refuge sites from which animals may freely come and go is another survey method, as well as physical boxes such things as suspended hessian bags may be colonised by Pygmy Possums and may later be revisited to observe or examine the occupants.

Direct Observation Techniques

Direct observation is self explanatory for animals such as larger wallabies and kangaroos which may be encountered by chance or stalked. Experience may amplify this technique in, for example, concentrating on careful observation at dusk when, under good conditions, emerging nocturnal species may be observed in silhouette. By regularly visiting habitats under a range of conditions a careful observer may gain insights not apparent on more casual inspection. One example is platypus observation; although not uncommon, platypus are less known than say wombats or wallabies but patient inspection of quiet pools will often reveal animals in their characteristic feeding dive around dusk and dawn or, in suitable conditions, basking.

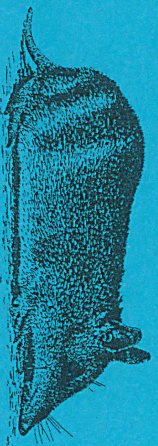
Spotlight observation primarily relies on the reflection of light from nocturnal animals eyes although other observations are also possible. Good binoculars are important, as is adequate observer-insulation and often patience.

Roadkills are perhaps the most common way wildlife is seen in Tasmania. While unfortunate, they at least indicates a population of animals in surrounding areas. Careful recording of details of roadkilled animals has revealed significant new information about distribution of species, and can indicate areas to survey further by other means.

Systematic inspection of likely refuges of animals may often yield useful observations such as tree hollows and crevices under bark which are often used by arboreal animals and bats. Hollows are often surrounded by scratchings of animals using or exploring them, and usually seem subject to intense competition for occupation, with users often preferring a size in close proportion to their own body size. Burrows are constructed by wombats and secondarily used by quolls and a range of other species.

Tracks and Signs Recording

Tracks and signs often provide an early indication of species present in an area. Tracks are usually footprints, signs may be a range of indirect indications of a species presence. Some of these are often clear and almost unmistakable, others are subtle and accurate interpretation relies on experience and deduction. Scats, bones, foraging signs such as diggings, burrows and hair samples are all examples of mammal signs.



Eastern Barred Bandicoot : virtually extinct on mainland Australia. In Tasmania it is widespread and possibly declining. Its biology, particularly habitat usage, is poorly known. It lacks adequate reserved habitat and there is no evident program to remedy this situation.

Summary

Wildlife Survey using techniques outlined above have been used in other states for some decades. They have been instrumental in detailing the ranges and compositions of faunas, often a labour intensive process but one providing invaluable information. The Tas Fieldnats Wildlife Survey Group intends holding regular excursions as well as encouraging the systematic recording of information gleaned from all available sources. Details of activities will appear in our Bulletin and our journal, the *Tasmanian Naturalist*, as they are consolidated.

Illustrations above from : *Australian Monotremes and Marsupials*, by Gordon Lyne, Angus and Robertson Publishers, 1967.

References:

- Tasmanian Mammals* : A field guide, by Dave Walls, Peregrine Press, Kettering, 1993.
- Skulls of the Mammals in Tasmania*, by Dr Robert Green, Queen Victoria Museum and Art Gallery, 1983.
- Mammal Tracks and Signs; a field guide for south-eastern Australia*, by Barbara Triggs, Oxford University Press, 1984.

The Australian Museum Complete Book of Australian Mammals, edited by Ronald Strahm, Angus and Robertson Publishers, 1983.

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